

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1-90. (Cancelled)

91. (New) A method for processing a metal body, comprising:
moving the metal body in an extending direction of the metal body;
heating the metal body up to a temperature for performing solution heat treatment of the metal body thus forming a low deformation resistance region;
deforming the metal body at the low deformation resistance region by twisting, and quenching the metal body thus forming a non-low deformation resistance region where the metal structure of the metal body is turned into finer grain structure and an amount of addition elements placed in solid solution is increased;
and
performing aging treatment by maintaining the metal body at a temperature which does not turn the metal structure into coarser grain structure after turning the metal structure of the metal body into the finer grain structure.

92. (New) A method for processing a metal body, comprising:

moving the metal body in an extending direction of the metal body;

heating the metal body up to a temperature for performing solution heat treatment of the metal body thus forming a first low deformation resistance region;

deforming the metal body at the first low deformation resistance region by twisting, and quenching the metal body thus forming a non-low deformation resistance region where metal structure of the metal body is turned into finer grain structure and an amount of addition elements placed in solid solution is increased;

heating the metal body at the non-low deformation resistance region up to a temperature at which the recrystallization of metal structure is generated in the metal body thus forming a second low deformation region, a temperature for forming the second low deformation region being lower than the temperature for forming the first low deformation resistance region;

deforming the metal body at the second low deformation resistance region by twisting, and quenching the metal body thus turning the metal structure of the metal body into further finer grain structure; and

performing aging treatment by maintaining the metal body at a temperature which does not turn the metal structure into coarser grain structure after turning the metal structure of the metal body into finer grain structure.

93. (New) A method for processing a metal body according to claim 92, further comprising preheating the metal body before heating the metal body up to the

temperature for performing solution heat treatment of the metal body for forming the first low deformation resistance region.

94. (New) A method for processing a metal body according to claim 93, wherein a temperature of the preheating is set to the solution heat treatment temperature.